# TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104 Phone No. (512) 322-2212 Fax No. (512) 463-6693

### PRODUCT EVALUATION

RC-327

March 1, 2012

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code** (IRC) and the **International Building Code** (IBC). This product shall be subject to reevaluation **Warch 2015**.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

SS 150 Steel Standing Seam Roof Panels Installed Over Wood Deck, manufactured by

Midwest Metal Roofing Systems 115 Cole Street Nevada, TX 75173 (972) 578-1599

will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

# PRODUCT DESCRIPTION

The SS 150 roof panel is a 24 gauge (0.0255 inches) steel panel that has a mechanically seamed double-lock side joint. The panel has an effective width of 17". The panel has a yield strength of 50,000 psi (minimum).

## **LIMITATIONS**

**Roof Decking:** The metal roof panels shall be installed over a minimum of  $\frac{1}{3}$  " thick plywood decking.

**New Roof Deck Attachment:** The roof decking shall meet or exceed the uplift requirements of the International Residential Code and International Building Code, and the decking shall be installed in a manner to resist lateral loads.

**Design Wind Pressures:** For installations to minimum  $\frac{1}{3}$  thick plywood roof decks, design wind pressure limitations are specified in Table 1.

**Installation Over an Existing Roof Covering:** Installation over an existing roof covering is not permitted.

**Roof Slope:** The panels shall not be installed on roofs with a roof slope less than 2:12 or on roof slopes greater than 8:12.

Table 1
Attachment of 17" Wide 24 Gauge Steel Roof Panel to
Minimum 1%32" Plywood Deck

System	Design Pressure (psf)	Panel Clip	Clip Spacing	Clip Fastener
1	-108.5	24 gauge, 5" wide Architectural Metal Specialties, Inc., 2-piece hook-style galvanized steel clip	12"	(2) #8-14 x 1" GP wood screws with Phillips #2 drive slot
2	-86	24 gauge, 5" wide Architectural Metal Specialties, Inc., 2-piece hook-style galvanized steel clip	24"	(2) #8-14 x 1" GP wood screws with Phillips #2 drive slot

#### INSTALLATION INSTRUCTIONS

**General:** The steel roofing panels shall be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

**Roof Framing Members:** The roof framing members shall be spaced a maximum of 24 inches on center.

**Underlayment:** A minimum of one layer of 40 mil W.R. Grace Ice and Water Shield self-adhered underlayment or other equivalent self adhering underlayment complying with ASTM D 1970 applied over the plywood deck.

Anchorage to Roof Decking: The metal roof panels shall be fastened in accordance with Table 1. The metal roofing panels shall be secured to the roof deck with 24 gauge, two piece hook-style, galvanized steel clip manufactured by Architectural Metal Specialties, Inc., measuring 5" wide x 2.625" high. The clips are located at panel ends and are spaced either 12 or 24 inches on center in accordance with Table 1. The clips are secured with two (2) #8-14 x 1" GP wood screws with Phillips #2 drive slot. The screws must penetrate the sheathing a minimum of  $\frac{3}{16}$ ". The female rib is engaged over the male rib and field seamed.

**Trims, Closures, and Accessories:** Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim shall be installed as required by the manufacturer.

Panel Ends and End Laps: As required by the manufacturer.

Panel Edges: As required by the manufacturer.

**Note:** The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners, clips and plates shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.